

IN THE CLAIMS:

1. (Cancelled)
2. (Currently Amended) A method according to claim 4 53, wherein a correlation value exceeding said threshold value is stored in a memory.
3. (Original) A method according to claim 2, wherein timing data on the timing at which said correlation value exceeds said threshold value is stored in a memory.
4. (Original) A method according to claim 3, wherein the detection process for correlation value is performed over several slots, the correlation values obtained in the slots are integrated to detect said correlation peak value, and, when the correlation value exceeds said threshold value in the first slot after starting the integration, the correlation value and the timing data corresponding to the correlation value are unconditionally stored in a new area on said memory.
5. (Original) A method according to claim 3, wherein the detection process for correlation value is performed over several slots, the correlation values obtained in the slots are integrated to detect said correlation peak value, and, when the correlation value exceeds said threshold value in any of the second and the subsequent slots after starting the integration and the timing data on the timing at which the correlation value exceeds said threshold value coincides with the timing data already stored in said memory, integration is performed with the correlation value already stored in said memory and the result is stored in the same area.
6. (Currently Amended) A method according to claim 3, wherein the detection process for correlation value is performed over several slots, the correlation

values obtained in the slots are integrated to detect said correlation peak value, and, when the correlation value exceeds said threshold value in any of the second and the subsequent slots after starting the integration and the timing data on the timing at which the correlation value exceeds said threshold value does not coincide with the timing data already stored in said memory, the correlation value and the timing data corresponding to the correlation value are stored in a new area on said memory.

7. (Currently Amended) A method according to claim 4 53, wherein said threshold value can be arbitrarily set.

8. (Original) A method according to claim 4, wherein the number of times of integration can be arbitrarily set.

9. (Cancelled)

10. (Currently Amended) An apparatus according to claim 9 54, further comprising a first storage section for storing a correlation value exceeding said threshold value, obtained as a result of comparison by said comparison section.

11. (Original) An apparatus according to claim 10, further comprising a second storage section for storing timing data on the timing at which said correlation value exceeds the threshold value.

12. (Original) An apparatus according to claim 11, further comprising a correlation value integration section for performing the detection process for correlation value over several slots and integrating the correlation values obtained in the slots, wherein,

when the correlation value exceeds said threshold value in the first slot after starting the integration, the correlation value and the timing data corresponding to the

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correlation value are unconditionally stored in new areas of said first and second storage sections, and, when the correlation value exceeds said threshold value in any of the second and the subsequent slots after starting the integration, if the timing data on the timing at which the correlation value exceeds said threshold value coincides with the timing data already stored in said second storage section, integration is performed with the correlation value already stored in said first storage section and the result is stored in the same area, and if the timing data on the timing at which the correlation value exceeds said threshold value does not coincide with the timing data already stored in said second storage section, the correlation value and the timing data corresponding to the correlation value are stored in new areas of said first and second storage sections.

13. (Original) An apparatus according to claim 11, wherein said first and second storage sections are provided in a single memory.

14. (Currently Amended) An apparatus according to claim 9 54, further comprising a register for arbitrarily setting said threshold value.

15. (Original) An apparatus according to claim 12, further comprising a register for arbitrarily setting the number of times of integration.

16. (Currently Amended) An apparatus according to claim 9 54, further comprising an end notification section for notifying the completion of the detection process for said correlation peak value when the detection process is completed.

17. (Original) An apparatus according to claim 11, further comprising an overflow notification section for notifying a shortage of storage area in at least one of said first and second storage sections when it occurs.

18. (Currently Amended) An apparatus according to claim 9 54, further comprising a registration count notification section for notifying the number of correlation values stored in said first storage section.

19. (Original) An apparatus according to claim 12, wherein integration over several slots is started after activation of said apparatus.

20. (Cancelled)

21. (Currently Amended) A medium according to claim 20 55, further storing a program for causing said computer to realize a control function of controlling to store a correlation value exceeding said threshold value, obtained as a result of comparison by said comparison function, in a memory.

Al Cont.
22. (Original) A medium according to claim 21, further storing a program for causing said computer to realize a control function of controlling to store timing data on the timing at which said correlation value exceeds said threshold value, in a memory.

23. (Cancelled)

24. (Currently Amended) A method according to claim 23 56, wherein comparison to check whether an integrated correlation value has reached said reference set value, is performed on the basis of power values.

25. (Currently Amended) A method according to claim 23 56, wherein comparison to check whether an integrated correlation value has reached said reference set value, is performed on the basis of voltage values.

26. (Currently Amended) A method according to claim 23 56, wherein said reference set value can be arbitrarily set.

27. (Currently Amended) A method according to claim 23 56, wherein said path count set value can be arbitrarily set.

28. (Cancelled)

29. (Currently Amended) A method according to claim 28 57, wherein said first and second modes can be arbitrarily selected and set.

30. (Cancelled)

31. (Currently Amended) An apparatus according to claim 30 58, further comprising a count section for counting the number of paths at which an integrated correlation value has reached said reference set value, obtained as a result of comparison by said comparison section.

32. (Original) An apparatus according to claim 31, wherein integration is ended when the count by said count section reaches a path count set value.

33. (Currently Amended) An apparatus according to claim 30 58, further comprising a register for arbitrarily setting said reference set value.

34. (Currently Amended) An apparatus according to claim 30 58, further comprising an external terminal for arbitrarily setting said reference set value.

35. (Currently Amended) An apparatus according to claim 30 58, wherein comparison by said comparison section is performed on the basis of power values.

36. (Currently Amended) An apparatus according to claim 30 58, wherein comparison by said comparison section is performed on the basis of voltage values.

37. (Currently Amended) An apparatus according to claim 30 58, wherein said comparison section compares an integrated correlation value output from an adder for performing integration, with said reference set value.

38. (Currently Amended) An apparatus according to claim ~~30~~ 58, wherein said comparison section compares an integrated correlation value output from a memory for storing calculated integrated correlation values, with said reference set value.

39. (Original) An apparatus according to claim 32, further comprising a register for arbitrarily setting said path count set value.

40. (Original) An apparatus according to claim 32, further comprising an external terminal for arbitrarily setting said path count set value.

41. (Cancelled)

42. (Cancelled)

43. (Currently Amended) An apparatus according to claim ~~42~~ 60, comprising a register for arbitrarily selecting and setting said first and second modes.

44. (Currently Amended) An apparatus according to claim ~~42~~ 60, comprising an external terminal for arbitrarily selecting and setting said first and second modes.

45. (Cancelled)

46. (Cancelled)

47. (Currently Amended) An apparatus according to claim ~~46~~ 62, wherein said dynamic RAM is used as a memory for storing integration results in said cell search operation.

48. (Currently Amended) An apparatus according to claim ~~46~~ 62, wherein data access occurs in said dynamic RAM within its refresh cycle.

49. (Cancelled)

50. (Cancelled)

51. (Cancelled)

52. (Currently Amended) ~~An A portable terminal apparatus according to claim~~
51, wherein a dynamic RAM is used as a memory in a portable telephone having at
least a function of voice communication through a radio channel and data access
occurs in said dynamic RAM within its a refresh cycle.

53. (New) A cell search method comprising the steps of:
detecting correlation values between an input signal and a spreading code;
comparing each of said detected correlation values with a threshold value; and
detecting a correlation peak value in a predetermined unit of slots in accordance
with a result of said comparison.

54. (New) A communication synchronization apparatus comprising:
a detection device that detects correlation values between an input signal and a
spreading code generated by the detection device, and detects a correlation peak value
in a predetermined unit of slots to detect a synchronization point of said input signal,
and

a comparison section for comparing each of the detected correlation values with
a predetermined threshold value.

55. (New) A computer-readable storage medium for a communication
synchronization apparatus comprising:

a detection device that detects correlation values between an input signal and a
spreading code generated by the detection device, and detects a correlation peak value
in a predetermined unit of slots to detect a synchronization point of said input signal,
said medium storing a program for causing a computer to realize a comparison function

of comparing each of the detected correlation values with a predetermined threshold value.

56. (New) A cell search method comprising the steps of:
detecting correlation values between an input signal and a spreading code;
comparing each of said detected correlation values with a threshold value;
detecting a correlation peak value in a predetermined unit of slots in accordance with a result of said comparison; and

ending the process when the number of paths at which an integrated correlation value has reached a reference set value, reaches a path count set value.

57. (New) A cell search method comprising the steps of:
detecting correlation values between an input signal and a spreading code;
comparing each of said detected correlation values with a threshold value;
detecting a correlation peak value in a predetermined unit of slots in accordance with a result of said comparison;

providing a first mode in which the process is ended when the number of paths at which an integrated correlation value has reached a reference set value, reaches a path count set value, and a second mode in which the process is performed a predetermined number of times.

58. (New) A communication synchronization apparatus comprising:
a detection device that detects each slot in a predetermined unit, a correlation value between an input signal and a spreading code generated by the detection device, the detection process for correlation value is performed over several slots, the

correlation values obtained in the slots are integrated to detect a correlation peak value, and thereby a synchronization point of said input signal is detected; and

a comparison section for comparing each of a calculated integrated correlation value with a reference set value.

59. (New) A communication synchronization apparatus comprising:

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a detection device that detects each slot in a predetermined unit, correlation values between an input signal and a spreading code generated by the detection device, the detection process for correlation value is performed over several slots, the correlation values obtained in the slots are integrated to detect a correlation peak value, and thereby a synchronization point of said input signal is detected; and

a comparison section for comparing each of the detected correlation value or each of a value output from a power conversion device for converting the correlation value into a power value, with a reference set value.

60. (New) A communication synchronization apparatus comprising:

a detection device that detects each slot in a predetermined unit, a correlation value between an input signal and a spreading code generated by the detection process for correlation value is performed over several slots, the correlation values obtained in the slots are integrated to detect a correlation peak value, and thereby a synchronization point of said input signal is detected; and

a first mode in which integration is ended when the number of paths at which an integrated correlation value has reached a reference set value, reaches a path count set value, and a second mode in which integration is performed a predetermined number of times.

61. (New) A computer-readable storage medium for a cell search operation comprising:

a detection device that detects each slot in a predetermined unit, a correlation value between an input signal and a spreading code generated by the detection device, the detection process for correlation value is performed over several slots, and the correlation values obtained in the slots are integrated to detect a correlation peak value, said medium storing a program for causing a computer to realize a function of ending integration when the number of paths at which an integrated correlation value has reached a reference set value, reaches a path count set value.

62. (New) A communication synchronization apparatus for performing a cell search operation comprising:

a detection device that detects a correlation value between an input signal and a spreading code generated by the detection device, and detects a correlation peak value in a predetermined unit of slots; and

a dynamic RAM as a memory used in said cell search operation.

63. (New) A communication synchronization apparatus for performing a cell search operation comprising:

a detection device that detects each of several slots in a predetermined unit, a correlation value between an input signal and a spreading code generated by the detection device, and the correlation values obtained in the slots are integrated to detect a correlation peak value; and

a dynamic RAM as a memory used for storing the integration results of correlation values.

64. (New) A communication synchronization apparatus for performing a cell search operation comprising:

Al Cont.
a detection device that detects each of several slots in a predetermined unit, a correlation value between an input signal and a spreading code generated by the detection device, and the correlation values obtained in the slots are integrated to detect a correlation peak value,

wherein a dynamic RAM is used as a memory in a correlator which detects correlation values in the slots in the manner of detecting the correlation value in each subunit obtained by dividing said spreading code, storing the correlation values in said memory, and outputting the sum of the correlation values of all subunits.
